

# VILLAGE OF BARRINGTON

## 2005 WATER QUALITY REPORT

### Who should read this report?

#### Do you drink water? If your answer is “yes” read on.

The United States Environmental Protection Agency (USEPA) requires all Communities to provide to their consumers a Consumer Confidence Report on the quality of their systems drinking water. This report summarizes the quality of water that we provided during the last year. Included are details about where your water comes from, what it contains and how it compares to standards set by regulatory agencies. Also included in this years report is a Source Water Assessment Summary. Community water supplies are required to report a summary of their source water susceptibility determination, which were compiled by the IEPA.

The Annual Water Quality Report for the period of January 1 to December 31, 2005 is intended to provide you with important information about your drinking water and the efforts made by the BARRINGTON water system to provide safe drinking water. The source of drinking water used by BARRINGTON is Ground Water.

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

### Regulations

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

In addition to the informational section of the Water Quality Report, we have included for your review several tables. The tables will give you a better picture of the contaminants that were detected in your water and the contaminants that were tested for, but not detected.

### Sources of drinking water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it can dissolve naturally occurring minerals and radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

### Possible contaminants:



#### Inorganic contaminants,

such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining or farming;



#### Organisms, pesticides and herbicides,

which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses;



#### Organic chemical contaminant,

including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems;



#### Radioactive contaminants,

which may be naturally occurring or be the result of oil and gas production and mining activities;



#### Microbial contaminants,

such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

If you have any questions about this report or concerning your water system please contact  
David W. Schmidt, Superintendent of Utility Operations **847/304-3358**  
or John M. Heinz, Director of Public Works **847/381-7903**.

## Village of Barrington








## Safe Drinking Water Hotline



Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

We are advised by the IEPA that some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

## 2005 Water Facts

-  More than 6,200 separate tests were performed on water samples from our system.
-  For the thirteenth (13th) consecutive year, the Village of Barrington has been recognized for achieving the highest standard of compliance for fluoride addition in accordance with the Fluoridation Act.
-  Population served .....10,300
-  Metered customers .....4,150
-  Miles of watermain .....88
-  # of Fire hydrants .....999
-  Water production .....1.799  
(average million gallons/day)

## Regulated Contaminants Detected

### CONTAMINANT (units) Typical Source of Contaminant

LEAD (ppb)	Corrosion of household plumbing systems; erosion of natural deposits
COPPER (ppm)	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

### INORGANIC REGULATED CONTAMINANTS

BARIUM (ppm)	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
FLUORIDE (ppm)	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer.
SELENIUM (ppb)	Discharge from petroleum and metal refineries; erosion of natural deposits

### DISINFECTANTS & DISINFECTION BY-PRODUCTS

TTHMS (ppb)	By-product of drinking water chlorination
CHLORINE (ppm)	Water additive used to control microbes

### STATE-REGULATED CONTAMINANTS

IRON (ppb)	Erosion of naturally occurring deposits
SODIUM (ppm)	Erosion of naturally occurring deposits; Used as water softener

#### Note:

The state requires monitoring of certain contaminants less than once not change frequently. Therefore, some of this data may be more th

## Key:

### Definitions of Terms

#### Maximum Contaminant Level Goal - MCLG:

The level of a contaminant in drinking water below which there is not known or expected risk to health. MCLGs allow for a margin of safety.

#### Maximum Contaminant Level - MCL:

The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible, using the best available treatment technology.

#### Action Level - AL:

The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.

*All residents are notified yearly of their water test results and the r*

ed in 2005					
MCLG	AL	Highest Level Detected	# of Sites Over	Violation	Collection Date
0	15	45.6	10 exceeding AL	AL	12/28/05
1.3	1.3	1.26	5 exceeding AL	No	12/28/05
2	2	0.0926	0.0506 - 0.0926	No	4/13/04
4	4	0.00118	n/a	No	4/13/04
50	50	2.3	n/a	No	4/13/04
n/a	80	1.96	n/a	No	7/20/04
mrclg=4	mrcl=4	0.5541	0.4281 - 0.5541	No	3/31/05
n/a	1000	380	0 - 380	No	6/18/04
n/a	n/a	30.4	21.9 - 30.4	No	4/13/04

once per year because the concentrations of these contaminants do e than one year old.

- n/a: Not applicable
- ppm: Parts per million or milligrams per liter
- ppb: Parts per billion or micrograms per liter
- pCi/l: Picocuries per liter, used to measure radioactivity

he report is available on the village website – [www.barrington-il.gov](http://www.barrington-il.gov)

# About the Data



The Maximum Contaminant Level (MCL) for lead is 15 parts per billion (ppb) and 1.3 parts per million (ppm) for copper. When lead or copper exceeds their Action levels (AL), some form of treatment is required, which the water system must follow. The Village of Barrington adds polyphosphates to the potable water system. This is to help prevent lead in your home's plumbing from leaching into the water. In the Regulated Contaminants Detected chart, the number 45.6 represents the 90th % level found in (ppb) for lead. The number of homes the IEPA requires the Village to test is 60. Of the 60 homes tested, 10 were found to exceed the AL for lead while 5 were found to exceed the AL for copper.

## Lead

Infants and young children who drink water-containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. It is possible that lead levels at your home may be higher than at other homes in your community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your homes water, have your water tested. Also, flush your tap for 30 seconds to two minutes before using tap water. Additional information is available from the USEPA's Safe Drinking Water Hotline at 1-800-426-4791.

## Copper

Copper is an essential nutrient, but some people who drink water-containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water-containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

## Iron

This contaminant is not currently regulated by the USEPA. However, the state has set an MCL for this contaminant for supplies serving a population of 1,000 or more. Iron is not a health risk, but it does create aesthetic problems, such as giving water a metallic taste and causing stains on fixtures and clothing.

## Sodium

There is not a state or federal MCL for Sodium. Monitoring is required to provide information to consumers and health officials that are concerned about intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about the level of sodium in the water.

Village of Barrington  
200 S. Hough Street  
Barrington, IL 60010

Presorted  
Standard  
U.S. Postage  
PAID  
Barrington, IL  
Permit 40

## 2005 Source Water Assessment Summary

### Importance of Source Water

The Village of Barrington utilizes four active community water supply wells that distribute 1,799,000 gallons per day on average to an estimated population of 10,300 at 4,150 service connections.

### Susceptibility to Contamination

Based on information obtained in a well Site Survey, published in 1992 by the Illinois EPA, fourteen potential sources or possible problem sites were located within the survey area of Barrington's wells. Furthermore, information provided by the Leaking Underground Storage Tank and Remedial Project Management Sections of the Illinois EPA indicated several sites with ongoing remediation, which may be of concern.

The Illinois EPA has determined that the Barrington Community Water Supply's source water is not susceptible to contamination. This determination is based on a number of criteria including: monitoring conducted at the wells; monitoring conducted at the entry point to the distribution system; and the available hydro geologic data on the wells.

Furthermore, in anticipation of the U.S. EPA's proposed Ground Water Rule, the Illinois EPA has determined that the Barrington Community Water Supply is not vulnerable to viral contamination. This determination is based upon the completed evaluation of the following criteria during the Vulnerability Waiver Process: the community's wells are properly constructed with sound integrity and proper site conditions; a hydro geologic barrier exists which should prevent pathogen movement; all potential routes and sanitary defects have been mitigated such that the source water is adequately protected; monitoring data did not indicate a history of disease outbreak; and the sanitary survey of the water supply did not indicate a viral contamination threat. Because the community's wells are constructed in a confined

aquifer, which should prevent the movement of pathogens into the wells, well hydraulics was not considered to be a significant factor in the susceptibility determination. Hence, well hydraulics was not evaluated for this groundwater supply.

### Source Water Protection Efforts

The Illinois Environmental Protection Act provides minimum protection zones of 200 feet for Barrington's wells. Minimum protection zones are regulated by the Illinois EPA. To further reduce the risk to source water, the facility has implemented a wellhead protection program, which includes the proper abandonment of potential routes of groundwater contamination and correction of sanitary defects at the water treatment facility. This effort resulted in the community water supply receiving a special exception permit from the Illinois EPA, which allows a reduction in monitoring. The outcome of this monitoring reduction has saved the facility considerable laboratory analysis costs. To further minimize the risk to Barrington's groundwater supply, the Illinois EPA recommends that three additional activities be assessed. First, the community may wish to enact a "maximum setback zone" ordinance to further protect their water supply. These ordinances are authorized by the Illinois Environmental Protection Act and allow county and municipal officials the opportunity to provide additional protection up to a fixed distance, normally 1,000 feet, from their wells. Second, the water supply staff may wish to revisit their contingency planning documents, if available. Contingency planning documents are a primary means to ensure that, through emergency preparedness, a community will minimize their risk of being without safe and adequate water. Finally, the water supply staff is encouraged to review their cross connection control program to ensure that it remains current and viable. Cross connections to either the water treatment plant (for example, at bulk water loading stations) or in the distribution system may negate all source water protection initiatives provided by the community.